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P R E M I U M S

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FOR THE ENCOURAGEMENT OF

ARTS, MANUFACTURES

A N D

C O M M E R C E,

I N T H E Y E A R,

M D C C L X X X V I I I .

T O T H E  
P U B L I C K.

ADELPHI BUILDINGS, *April 10, 1788.*

THE chief objects of the attention of the Society for the Encouragement of Arts, Manufactures, and Commerce, in the application of their Rewards, are Ingenuity in the several branches of the Polite and Liberal Arts; useful Discoveries and Improvements in AGRICULTURE, MANUFACTURES, MECHANICKS, and CHEMISTRY, or the laying open any such to the Publick; and in general, all such useful Inventions, Discoveries, or Improvements (though not mentioned in the Book of Premiums) as may appear to have a tendency to the advantage of Trade and Commerce; the Society therefore, in pursuance of their plan, propose to bestow the following Premiums:

*Premiums*

*Premiums for Planting and Husbandry.*

1. ACORNS. For having set, agreeably to the conditions published in the list of premiums last year, between the first of October, 1787, and the first of April, 1788, the greatest quantity of strong land, not less than ten acres with acorns, and seeds or cuttings of other trees, and for the effectually fencing and preserving the same, in order to raise timber and underwood; the gold medal.

2. For the second greatest quantity of land, not less than five acres, sown or set agreeably to the above conditions; the silver medal.

CERTIFICATES of setting or sowing agreeably to the above conditions, and that there are not fewer than three hundred young Oaks on each acre; to be delivered  
to

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to the Society, on or before the first Tuesday in November, 1788.

3, 4. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1789.

5, 6. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November 1790.

7, 8. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November 1791.

R 9. RAIS-

9. RAISING OAKS. To the person who shall have raised the greatest number of Oaks, not fewer than five thousand, either from young plants, or from acorns, in woods, parks, or forests, that have long been under timber, and effectually fenced and preserved the same, in order to secure a succession of oak timber in this kingdom; the gold medal.

10. For the next greatest quantity, not fewer than three thousand; the silver medal.

CERTIFICATES and Accounts to be produced on or before the first Tuesday in January, 1789.

11, 12. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1790.

13, 14,

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13, 14. The same premiums are extended one year further.

CERTIFICATES that there were on the land, upon the first of November 1790, at least the number of young Oak trees required, in a thriving condition effectually fenced and preserved, with an account of the methods pursued in making and managing the plantation; to be produced to the Society on or before the first Tuesday in January, 1791.

### 15. OBSERVATIONS ON OAK.

To the person who shall furnish the best observations and experiments on the various obstructions to the growth of Oak trees, with apposite remedies for the same; and shall also ascertain those appearances on Oak trees, which may serve to shew them to have arrived at the proper period, and to be in a fit state to be

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felled

felled for the purposes of ship building, and other uses, the gold medal.

The Accounts to be produced to the Society, on or before the third Tuesday in December 1789.

16. CHESNUTS. For having sown or set agreeably to the conditions published in the list of premiums last year, between the first of October, 1787, and the first of April 1788, the greatest quantity of dry loamy land, not less than six acres, with a mixture of Spanish Chestnuts and the seeds or cuttings of other trees adapted to such soil, and for effectually fencing and preserving the same, in order to raise timber ; the gold medal.

17. For the second greatest quantity not less than four acres; the silver medal.

CERTIFICATES of sowing or setting agreeably to the above conditions, and that there



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there are not fewer than three hundred Chesnut plants in a thriving state on each acre, to be delivered to the Society, on or before the first Tuesday in November 1788.

18, 19. The same premiums are extended one year further.

CERTIFICATES to be delivered on or before the first Tuesday in November 1789.

20, 21. The same premiums are extended one year further.

CERTIFICATES to be delivered on or before the first Tuesday in November 1790.

22, 23. The same premiums are extended one year further.

CERTIFICATES to be delivered on or before the first Tuesday in November 1791.

24. ELM. For having planted the greatest number of the English Elm, not

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less than eight thousand, between the twenty-fourth of June, 1787, and the twenty-fourth of June, 1788, and for the having effectually fenced and preserved the same, in order to raise timber ; the gold medal.

25. For the second greatest number, not less than five thousand ; the silver medal.

26. For the third greatest number, not less than four thousand ; the silver medal.

CERTIFICATES of the having planted agreeably to the above conditions, and specifying the distance of the trees, must be delivered to the Society, on or before the first Tuesday in November, 1788.

27, 28, 29. The same premiums are extended one year further.

CERTIFICATES of the having planted agreeably to the above conditions, that the  
plants

plants were in a healthy and thriving state two years at least, after making the plantation, and specifying the distance of the plants ; to be delivered to the Society, on or before the first Tuesday in November, 1792.

30. LARCH. For having planted out, from the twenty-fourth of June 1787, to the twenty-fourth of June 1788, at a distance not more than five feet, the greatest number of Larch-trees, not less than five thousand ; the plants to be between two and four years old when planted out ; and for having effectually fenced and preserved the same, in order to raise timber ; the gold medal.

31. For the second greatest number, not less than three thousand ; the silver medal.

CERTIFICATES of having planted agreeably to the above conditions, to be

R 4 delivered

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delivered on or before the last Tuesday in November 1788.

32. LARCH. For having planted out between the twenty-fourth of June 1789, and the twenty-fourth of June 1790, in a mixed plantation of forest trees, the greatest number of Larch trees not fewer than five thousand, and for having effectually fenced and preserved the same in order to raise timber; the gold medal.

33. For the next greatest number, not fewer than three thousand; the silver medal.

CERTIFICATES of the number of plants, that they were in a healthy and thriving state, two years at least, after they were planted out, with a general account of the methods used in making the plantation; to be delivered to the  
Society

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Society on or before the last Tuesday in December 1793.

34. SILVER FIR. For having planted out between the twenty-fourth of June 1789, and the twenty-fourth of June, 1790, in a mixed plantation of forest-trees, the greatest number of Silver Firs, not fewer than two thousand, and for having effectually fenced and preserved the same in order to raise timber; the gold medal.

35. For the next greatest number not fewer than one thousand; the silver medal.

CERTIFICATES of the number of plants, that they were in a healthy and thriving state, two years at least, after they were planted out, with a general account of the methods used in making the plantation, to be delivered to the Society on or before the last Tuesday in December 1793.

36. HUN-

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36. HUNTINGDON WILLOW.

For the greatest number of acres, not less than three, planted in the year, 1788, with Huntingdon Willows; the number of cuttings to be at least one thousand on each acre, properly fenced and secured; the gold medal.

CERTIFICATES to be produced on or before the last Tuesday in December, 1789.

37. UPLAND OR RED WILLOW.

For the greatest number of acres, not less than three, planted before the end of April 1788, with Upland or Red Willow, properly fenced and secured, the number of plants on each acre to be at least twelve hundred; the gold medal.

CERTIFICATES to be produced on or before the last Tuesday in April, 1789.

It is well known that this species of Willow thrives well on dry sandy land.

38. The

38. The same premium is extended one year further.

CERTIFICATES of the number of plants, and that they were in a thriving state at the time of signing such certificates; to be produced to the Society on or before the last Tuesday in April 1790.

39. ALDER. For the greatest number of acres, not less than six, planted in the year 1787, with Alders, to be at least one thousand on each acre, properly fenced and secured.

CERTIFICATES to be produced to the Society, on or before the last Tuesday in December, 1788, of the said planting, and that the trees were then growing on the land; the gold medal.

40. ALDER. For having planted in the year 1789, the greatest number of Alders not less than three thousand on an estate the property of one person; the gold medal.

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CERTIFICATES of the number of the plants, and that they were in a thriving state, two years at least, after being planted; to be delivered to the Society, on or before the last Tuesday in December 1792.

41. ASH. For having planted the greatest number of acres not less than six, in the year 1787, with Ash for timber; the plants to be at least two years old, properly secured and fenced; the number of plants on each acre to be at least twelve hundred; the gold medal.

42. For the next greatest number of acres, not less than four; the silver medal.

CERTIFICATES to be delivered on or before the second Tuesday in December, 1788.

43. ASH. For having sown or set in the year 1788, the greatest quantity of  
land,



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land, not less than six acres, with Ash for timber, intermixed with the seeds, cuttings or plants of such other trees as are adapted to the soil; the gold medal.

44. For the next greatest quantity not less than four acres; the silver medal.

CERTIFICATES of the sowing or setting agreeably to the above conditions, and that there are not fewer than one hundred Ash plants on each acre; to be delivered to the Society on or before the last Tuesday in December, 1789.

45, 46. The same premiums are extended one year further.

CERTIFICATES to be delivered on or before the last Tuesday in December 1790.

47. ASH. For having sown, or set in the year 1790, the greatest quantity of land, not less than six acres, with Ash  
for

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for timber, intermixed with seeds, cuttings or plants of such other trees as are adapted to the soil ; the gold medal.

48. For the next greatest quantity, not less than four acres ; the silver medal.

CERTIFICATES of the sowing or setting agreeably to the above conditions, that there are not fewer than one hundred Ash plants on each acre, in a thriving and healthy condition, two years at least, after the sowing or setting, with a general account of the methods used in making the plantation ; to be delivered to the Society on or before the last Tuesday in December, 1793.

49. MIXED TIMBER TREES. To the person who shall have inclosed, planted or sown the greatest number of acres, not less than ten, with the best sorts of Forest trees, for timber, between the first  
of

of October, 1784, and the first of May, 1786 ; the gold medal.

An Account of the methods used in making the plantations, and of the nature of the soil, together with proper Certificates that the trees were in a thriving and healthy state, two years, at least, after making the plantation, to be delivered to the Society on or before the first Tuesday in November, 1788.

50. The same premium is extended one year further.

The Accounts and Certificates to be delivered to the Society on or before the first Tuesday in November, 1789.

51. The same premium is extended one year further.

The Accounts and Certificates to be delivered to the Society on or before the first Tuesday in November, 1790,

52. The

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52. The same premium is extended one year further.

The Accounts and Certificates to be delivered to the Society on or before the first Tuesday in November, 1791.

53. MULBERRY CUTTINGS. For having raised the greatest number of white or black Mulberry Trees, for feeding Silk Worms, not less than three hundred, from cuttings in the year 1785, the gold medal.

CERTIFICATES of the raising and growth, with the manner of culture, and that the plants were growing in September, 1788, to be produced on or before the first Tuesday in November, 1788,

54. MULBERRY CUTTINGS. To the person who shall have formed in the year 1785, the largest plantation, not less than  
than

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than one acre of Mulberry Cuttings for the purpose of feeding Silk Worms ; the gold medal.

CERTIFICATES of the quantity of land and the method of culture, that the Mulberry Plants are not more than three feet asunder, and that they were growing in the month of September, 1788 ; to be produced on or before the first Tuesday in December, 1788.

It is proposed that this Plantation be continually kept in a low state, to the intent that the gathering the leaves may always be within the reach of women and children.

55. MULBERRY CUTTINGS OR TREES. For having planted the greatest number of white or black Mulberry Cuttings or Trees, not fewer than three  
S                      hundred,

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hundred, in the year 1787, for the purpose of feeding Silk Worms; the gold medal, or twenty pounds.

56. For the second greatest quantity, not fewer than one hundred and fifty; the silver medal, or ten pounds.

CERTIFICATES of such planting, with the manner of culture, and that the trees were growing in the month of July, 1789, to be produced to the Society on or before the first Tuesday in November, 1789.

57. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1790.

58. MULBERRY TREES IN HEDGE ROWS. To the person who shall plant in the year 1788, the greatest number,

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number, not fewer than one hundred layers, of the black or white Mulberry, in Hedge Rows, at a distance not less than twelve feet from each other ; ten pounds.

59. For the next greatest number not fewer than fifty ; five pounds.

CERTIFICATES of the number of plants, and that the trees were then in a growing state ; to be delivered to the Society, on or before the first Tuesday in October, 1789.

*\* \* The Candidates for planting all kinds of Trees, are to certify, that the respective Plantations are properly fenced and secured, and particularly to state the Condition the Plants were in at the time of signing such Certificates.*

*Any information which the Candidates for the foregoing Premiums may chuse to commu-*

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*nicate, relative to the methods made use of in forming the Plantation, or promoting the growth of the several Trees, or any other observations that may have occurred on the subject, will be thankfully received.*

60. TREES FOR USE WHEN EXPOSED TO THE WEATHER. To the person who shall send the most satisfactory account, verified by experiments, to determine which of the following trees is of the greatest utility for timber or poles, for use, when exposed to the weather ; viz.

Larch,	Black Poplar,
Ash,	Spanish Chestnut,
Willow,	Alder,
Beech,	Silver Fir,
Lombardy Poplar ;	

the gold medal.

The



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The Accounts to be produced on or before the second Tuesday in December, 1788.

61. The same premium is extended one year further.

The Accounts to be produced on or before the second Tuesday in December, 1789.

62. PLANTING BOGGY OR MORASSY SOILS. For an account of the best set of experiments sent by the planter or his representative, to ascertain the comparative advantages of planting boggy or morassy soils, with White Poplar, Black Poplar, Lombardy Poplar, and Willow; the gold medal.

It is required that not less than half an acre be planted with each, and the plants to be not more than four feet asunder.

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It is also required that the plantation stand fourteen years, at the end of which, to be all cut down and measured, or accurately measured standing; the Certificates of the measure and value, and that the whole is properly fenced and secured, to be produced on or before the first Tuesday in January, 1792.

N. B. Any information relating to the state of the plantation, if sent to the Society, between the time of planting and claiming the premium, will be thankfully received.

63. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January 1793.

64. The same premium is extended one year further.

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CERTIFICATES to be produced on or before the first Tuesday in January, 1794.

65. The same premium is extended to the year 1796.

CERTIFICATES to be produced on or before the first Tuesday in January, 1797.

66. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1798.

67. COMPARATIVE CULTURE OF WHEAT. For the best set of experiments made on not less than eight acres, four of which to be sown broadcast and four drilled, to ascertain whether it is most advantageous to cultivate Wheat, by sowing it in the common broadcast way, or by drilling it in equi-distant rows, hoeing the intervals; the gold medal.

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It is required that an account of the nature and condition of the land on which the experiments are made, together with an account of the produce of the corn, be produced to the Society on or before the first Tuesday in February, 1789.

68. The same premium is extended one year further.

The Accounts to be produced to the Society on or before the first Tuesday in February, 1790.

69. COMPARATIVE CULTURE OF WHEAT. For the best set of experiments made on not less than eight acres of land, four of which to be sown broad-cast and four dibbled, to ascertain whether it is most advantageous to cultivate Wheat, by sowing it in the common broad-cast way, or by dibbling it in equidistant rows, hoeing the intervals; the gold medal.

It

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It is required that an account of the nature and condition of the land on which the experiments are made, together with an account of the produce of the corn, be produced to the Society on or before the first Tuesday in February, 1789.

70. The same premium is extended one year further. The Accounts to be produced to the Society on or before the first Tuesday in February, 1790.

71. BEANS AND WHEAT. To the person who shall have planted or drilled between the first of December, 1786, and the first of March 1787, the greatest quantity of land, not less than ten acres, with Beans, and shall sow the same land with Wheat in the same year, 1787; ten guineas.

It is required that an account of the sort and quantity of Beans, the time of planting

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planting or drilling, and of reaping or mowing them, the produce per acre threshed, the application of the straw, the expence of planting or drilling, hand or horse-hoeing, the distance of rows and the quality of the soil, together with Certificates of the number of acres, and that the land was actually sown with Wheat in the year 1787, to be produced on or before the first Tuesday in November, 1788.

N. B. The Society have been informed that Beans may be drilled or planted so early as the month of December, from whence may be derived the advantage of an early harvest, in which case, the straw will be far more valuable than that from a later planting or drilling.

72. The same premium is extended one year further. The Accounts to be produced

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produced on or before the first Tuesday in November, 1789.

73. TURNEPS. For the best account of experiments made on at least six acres of land, to determine the comparative advantages of the drill, or broad-cast method in the cultivation of Turneps; the gold medal.

The Accounts to be delivered in, on or before the third Tuesday in April, 1789.

74. The same premium is extended one year further.

The Accounts to be delivered on or before the third Tuesday in April, 1790.

75. GREEN VEGETABLE FOOD. For the best account confirmed by experiments, of the vegetable Food, (Cabbages and

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and Turneps excepted) growing in the months of March and April, that will most encrease the milk in Mares, Cows, and Ewes, at that season; provided such food can be cultivated at an expense that will admit of its being applied to the above purposes; the gold medal.

CERTIFICATES to be produced on or before the second Tuesday in November, 1788.

76. The same premium is extended one year further.

CERTIFICATES to be produced on or before the second Tuesday in November, 1789.

77. COMPARATIVE CULTURE OF THE TURNEP ROOTED CABBAGE. To the person who shall produce to the Society, the best account of the



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the most satisfactory experiments, made on at least four acres of land, to ascertain the comparative advantages of the culture of the Turnep-rooted Cabbage, by sowing it broad-cast, and hoeing out the plants as is practised with the common Turnep, or by sowing the Seed in Nurseries and transplanting the plants at proper distances, hoeing the intervals; the silver medal, or ten pounds,

It is required that at least two acres be cultivated in each manner, and Certificates of the culture, with an account of the soil, expense and produce of each separately, be produced on or before the first Tuesday in October, 1791.

78. The same premium is extended one year further.

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CERTIFICATES and Accounts to be produced on or before the first Tuesday in October, 1792.

79. TURNEP-ROOTED CABBAGE.  
For having raised and duly cultivated Turnep-rooted Cabbage, in the year 1788, for the feeding Cattle or Sheep, on the greatest number of acres, not less than ten, and giving an account of the soil, culture, time and manner of feeding off, produce, and the effects on Cattle or Sheep fed with it; the gold medal.

80. For the next greatest number of acres not less than five; the silver medal.

CERTIFICATES of the quantity of land, with the accounts, to be produced on or before the last Tuesday in October, 1789.

81. The same premium is extended one year further.

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CERTIFICATES to be produced on or before the last Tuesday in October, 1790.

82. CURE OF THE CURLED POTATOE. To the person who shall discover to the Society the nature and cause of the disease in the Potatoe-plant called THE CURLED POTATOE, and point out an effectual cure, the whole verified by repeated and satisfactory experiments; the gold medal, or thirty pounds.

The Accounts to be produced to the Society, on or before the third Tuesday in November, 1789.

83. POTATOES FOR FEEDING CATTLE AND SHEEP. To the person who shall in the year 1788, cultivate the greatest quantity of land, not less than four acres, with Potatoes, for the sole purpose of feeding Cattle and Sheep, the gold medal, or twenty guineas.

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CERTIFICATES with satisfactory Accounts of the expence and manner of cultivating the Potatoes, and the application of them to the above purposes, and the success that has attended the use of them, to be delivered to the Society, on or before the second Tuesday in November, 1789.

84. The same premium is extended one year further.

CERTIFICATES to be delivered on or before the second Tuesday in November, 1790.

N. B. Should any Gentleman have already cultivated Potatoes for the purposes mentioned in the above advertisement, any information from him on the subject, will be thankfully received by the Society.

85. CUL-

85. CULTIVATING ROOTS AND HERBAGE FOR FEEDING SHEEP AND BLACK CATTLE. For the most satisfactory experiments made between Michaelmas, 1787, and the first of May, 1788, in order to ascertain which of the following plants can be cultivated and housed, or otherwise secured for winter fodder, to the greatest advantage, viz.

Turnep-rooted Cabbage,	Carrots,
Turnep Cabbage,	Parfneps,
Turneps,	Potatoes.

The Accounts to be produced on or before the first Tuesday in November, 1788 ; the gold medal.

It is required that the above roots be taken off the land by the last day of October, 1787 ; that a Crop of Wheat may be sown in the same ground, and the particulars of the sowing and planting, taking

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ing up, produce, preserving, and application to the feeding Sheep and Black Cattle, be specified. The comparative experiments must be made between two or more of any of the above mentioned plants, and not less than two acres be cultivated with each particular kind of plant.

N. B. Great advantage will arise to the Farmer occupying land in the neighbourhood of extensive commons, from the conveniency of keeping large flocks of Sheep, and herds of Cattle, if the difficulty of supporting them through the winter, was obviated by a due knowledge of this practice.

86. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1789.

87. STOCKS

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87. STOCKS OF BEES. To the person who shall have in his possession, being his own property, the greatest number of Stocks of Bees, not fewer than thirty, and who shall in the most judicious manner provide for them plenty of such vegetables as afford them honey and wax; the gold medal, or twenty pounds.

88. For the next greatest number, not fewer than twenty stocks; the silver medal, or ten pounds.

Proper Certificates of the number of Stocks, and that they have been in the possession of the Claimant during the preceding summer, together with a particular account of the vegetables provided for their sustenance, and the manner in which they have been managed, to be produced

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to the Society on or before the first Tuesday in November, 1789.

89. The same premium is extended one year further.

CERTIFICATES to be delivered on or before the last Tuesday in November, 1790.

90. CULTIVATING THE TRUE RHUBARB. For having raised before the end of the year 1788, the greatest number of plants, not less than three hundred, of *Rheum Palmatum*, or true Rhubarb; the gold medal.

91. For the next greatest quantity, not less than two hundred plants; the silver medal.

CERTIFICATES of the number of plants, that they stand at least four feet asunder, that they have been in a thriving state



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state during the preceding summer, with an account of the soil, culture, and aspect, to be produced on or before the second Tuesday in February, 1789.

92, 93. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the second Tuesday in February, 1790.

94. RHUBARB. For the greatest quantity of Rhubarb of British growth, not less than twenty pounds weight, equal to such as is commonly sold in the shops, under the name of Turkey, or Russia Rhubarb; five pounds of which to be produced as a sample, with Certificates that the remainder is of equal goodness; and a particular Account of the manner of culture and cure, on or be-

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fore the first Tuesday in November, 1788;  
the gold medal.

95. For the next greatest quantity  
not less than ten pounds weight; the  
silver medal.

96, 97. The same premiums are ex-  
tended one year further.

The Samples and Certificates to be pro-  
duced on or before the first Tuesday in  
November, 1789.

98. ASCERTAINING THE COM-  
PONENT PARTS OF ARABLE  
LAND. To the person who shall pro-  
duce to the Society the most satisfactory  
set of experiments, to ascertain the due  
proportion of the several component parts  
of Arable Land, in one or more counties  
in Great Britain, by an accurate analysis  
of it, and who having made a like ana-  
lysis

## AGRICULTURE. 279

lysis of some poor land, shall, by comparing the component parts of each, and thereby ascertaining the deficiencies in the poor soil, improve a quantity of it, not less than two acres, by the addition of such parts as the former experiments shall have discovered to be wanting therein, and therefore probably the cause of its sterility; the gold medal.

It is required that the manurings, ploughings, and crops of the improved land, be the same after the improvement as before, and that a minute account of the produce in each state; of the weather, and of the various influencing circumstances, together with the method made use of in analysing the soils, be produced, with proper certificates, and the chemical results of the analysis, which are to remain the property of the Society, on or before the last Tuesday in November, 1788.

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It is expected that a quantity, not less than six pounds, of the rich, of the poor, and of the improved soils, be produced with the Certificates.

N. B. Among the methods or processes made use of by Chemists, and called DRY or MOIST, the latter only appears adapted to the ascertaining the respective proportions of the component parts of Arable earth.—Dr Shaw, in his Chemical Lectures.—Dr Home, in his principles of Agriculture. Dr George Fordyce, in his Elements of Agriculture, and Sir Torben Bergman, in his ‘*Dissertation sur les Terres geoniques*,’ have treated of these subjects.

99. The same premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1789,

100. The

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100. The same premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1790.

101. The same premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1791.

102. The same premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1792.

103. IMPROVING LAND LYING WASTE. For the best Account of a method

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method of improving any of the following soils, being land lying waste or uncultivated, viz. Clay, Gravel, Sand, Chalk, Moor or Peat-earth, and Bog; verified by experiments on not less than ten acres of land, to be produced on or before the second Tuesday in December, 1788; the gold medal for each.

104. For the next in merit; the silver medal.

The soil, manner of improvement, expense and product, are required to be fully explained.

105, 106. The same premiums are extended one year further.

The Accounts to be produced on or before the second Tuesday in December, 1789.

107, 108.

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107, 108. The same premiums are extended one year further.

The Accounts to be produced on or before the second Tuesday in December, 1790.

109. MANURES. To the person who shall give the most satisfactory Account, verified by accurate experiments, on what soil the application of Marl, Chalk, Lime, or Clay severally, as manures, be most beneficial; the gold medal.

It is required that each experiment be made on one acre, and that they be continued four years, the same kind of Grain being sown the same year on the several spots,

It is also required, that if different manures are compared, the experiments  
be

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be made on similar soils, lying near each other.

An Account of the nature of the soil, manure, and the quantity laid on, with all expenses and crops to be delivered, with specimens of the soil and manure, on or before the first Tuesday in January, 1789.

110. The same premium is extended one year further.

The Accounts and specimens to be produced on or before the first Tuesday in January, 1790.

111. MANURES. For the most satisfactory set of experiments, to ascertain the comparative advantages of the following Manures, used as Top-dressings, on Grass or Corn Land, viz. Soot, Coal-Ashes, Wood-Ashes, Lime, Night-Soil ; the gold medal.

It



## AGRICULTURE: 285

It is required that not less than half an acre of land be appropriated to each Manure, the soils similar, and lying near each other, and if the Manure be used on Corn Land, then it is required that the same kind of Grain be sown the same year on each spot ; the experiments to be continued not less than two years.

An Account of the nature of the soil, quantity, and expence of the Manure and Crops, with Certificates to be produced on or before the first Tuesday in December, 1788.

112. The same premium is extended one year further.

The Account and Certificates to be produced on or before the first Tuesday in December, 1789.

113. IMPROVING WASTE MOORS  
For the improvement of the greatest number

## 286 AGRICULTURE.

ber of acres of Waste Moor Land, not less than one hundred ; the gold medal.

It is required that the land before improvement, be absolutely uncultivated, in a great measure useless, not let to any tenant, and without any building upon it except cottages or huts. That in its improved state, it shall be enclosed, cultivated, and divided into fields, with buildings erected thereon, sufficient for the use and residence of a tenant.

CERTIFICATES of the number of acres of the quality of the Moor so improved, of the mode and expense of the improvement ; the state it is in as to the proportion of grass to arable, and the rent at which it is let ; to be produced on or before the first Tuesday in February, 1789.

114. The same premium is extended one year further.

CER-

## AGRICULTURE. 287

CERTIFICATES to be produced on or before the first Tuesday in February 1790.

115. IMPROVING WASTE MOORS. For the improvement of the greatest number of acres of Waste Moor Land, not less than one hundred; the gold medal.

It is required that the Land before improvement, be absolutely uncultivated, and in a great measure useless, that in its improved state it be enclosed, cultivated and divided into fields sufficient for the use and occupation of a tenant.

CERTIFICATES of the number of acres of the quality of the Moor so improved, of the mode and expense of the improvement, the state it is in as to the proportion of grass to arable, and the average value thereof to be produced on or before the first Tuesday in February, 1791.

116. GAIN-

## 288 AGRICULTURE.

116. GAINING LAND FROM THE SEA. To the person who shall produce to the Society, an account of the best method, verified by actual experiment, of gaining Land from the Sea, not less than twenty acres, on the coast of England or Wales; the gold medal.

CERTIFICATES of the quantity of Land, and that the experiments were begun after the first of January, 1783, to be produced to the Society on or before the first Tuesday in October, 1788.

N. B. The Society have been credibly informed, that land has been gained on the coast of Holland, by fixing rows of whisps of straw upright in the sand, at about a foot distant from each other, or by fixing stakes at proper distances from each other and whatling straw bands between them.

117. The

AGRICULTURE. 289

117. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in October, 1789.

118. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in October, 1790.

119. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in October, 1791.

120. MACHINE TO ANSWER  
THE PURPOSE OF REAPING OR  
MOWING CORN. For inventing a  
U Machine

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Machine to answer the purpose of mowing or reaping Wheat, Rye, Barley, Oats, or Beans, by which it may be done more expeditiously and cheaper, than by any method now practised, provided it does not shed the Corn or Pulse, more than the methods in common practice, and that it lays the straw in such manner as may be easily gathered up for binding; ten guineas.

The Machine with Certificates that at least three acres have been cut by it, to be produced to the Society, on or before the second Tuesday in December, 1788.

Simplicity and cheapness in the construction, will be considered as principal parts of its merit.

121. The same premium is extended one year further.

To

## AGRICULTURE. 291

To be produced on or before the second Tuesday in December, 1789.

122. IMPROVED HOE. To the person who shall produce to the Society, the most improved or best constructed Horse, or Hand-Hoe, superior to any hitherto in use, for the purpose of clearing from Weeds, and loosening the Soil in, the intermediate spaces of all Crops of Corn, sown in equidistant rows, and which shall earth up the young Plants at the same time; the gold medal, or twenty guineas.

A Hoe, with Certificates of its having been successfully used, to be produced to the Society, on or before the first Tuesday in December, 1789.

123. DESTROYING THE GRUB OF THE COCKCHAFER. To the

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person

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person who shall discover to the Society, an effectual method, verified by repeated and satisfactory trials, of destroying the Grub of the Cockchafer, so destructive to the roots of all sorts of Corn, Peas, Beans, and Turneps ; the silver medal.

The Accounts to be produced on or before the first Tuesday in January, 1789.

*Premiums*



*Premiums for Discoveries and Improvements  
in Chemistry, Dying and Mineralogy.*

124. KELP. For the greatest quantity, not less than four tons of Kelp, containing a much larger proportion of Alkaline Salt than any Kelp now made for sale ; twenty pounds.

A specimen of one hundred weight, to be produced on or before the first Tuesday in January, 1789 ; together with Certificates that the whole quantity is equal to the specimen, and made in Great Britain or Ireland, of Sea Weed.

125. BARILLA. For the greatest quantity of merchantable Barilla, not less than half a ton, made from Spanish Kali, raised in Great Britain ; the gold medal.

A sample of not less than twenty-eight pounds, with a Certificate that half a ton

has been made; to be produced on or before the first Tuesday in January, 1789.

## 126. DISSERTATION ON ALKALI.

To the person who shall compose the best dissertation on the nature and qualities of vegetable and mineral Alkali, containing an account of their analogy to each other, and of the most essential properties wherein they differ; together with any useful remarks that may have escaped the notice of chemical Writers, explaining also the means of separating them from each other, but more particularly from sea salt, or other neutral salts which are frequently found united with them; so that when purified, they may be advantageously used in such manufactures wherein the admixture of neutral salts is detrimental: Lastly, an investigation into the nature of their composition and the method of decomposing them into their constituent principles; the gold medal, or fifty pounds.

The

The Differtation to be produced to the Society, on or before the first Tuesday in March, 1789.

127. PRESERVING SEEDS OF VEGETABLES. For the best method of preserving the Seeds of Plants in a state fit for vegetation, a longer time than has hitherto been practised, such method being superior to any known to the publick, and verified by sufficient trial ; to be communicated to the Society on or before the first Tuesday in December, 1788 ; the gold medal.

128. DESTROYING SMOKE. For the best Account, ascertained by proper experiments, of a method of destroying or burning the smoke of fires belonging to Steam Engines, Furnaces employed in calcining or smelting metals, or other large works, in order to prevent annoy-

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ance to the neighbourhood ; to be produced on or before the first Tuesday in January, 1789 ; the gold medal.

129. The same premium is extended one year further.

The Accounts to be produced on or before the first Tuesday in January, 1790.

130. CANDLES FROM RESIN.  
To the person who shall discover to the Society, the best method of so reducing the inflammable quality of Resin, as to adapt it to the purposes of making Candles fit for common use, at a price much inferior to that of Candles made of Tallow only ; the gold medal, or thirty guineas.

Six Pounds at least of the Candles so prepared, with an Account of the process, to be delivered to the Society, on  
or

or before the first Tuesday in December, 1788.

131. SUBSTITUTE FOR OR PREPARATION OF YEAST. For discovering to the Society an effectual Substitute for Yeast, or preparation of Yeast, which after being kept two months, shall be fit for fermenting liquors, and raising bread; the gold medal, or twenty pounds.

Specimens of the Substitute, or of the preparation of Yeast, sufficient for trials, together with a paper sealed up, and containing an account of the composition of the Substitute, or method of preparing the Yeast, to be produced on or before the last Tuesday in November, 1788.

132. INCREASING STEAM. To the person who shall discover to the Society, a method, verified by actual experiments, of increasing the quantity, or  
the

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the force of Steam, in Steam Engines, with less fuel than is usually employed, provided that in general the whole amount of the Expenses in using Steam Engines may be considerably lessened ; the gold medal.

To be communicated to the Society on or before the first Tuesday in January, 1789.

N. B. As it is well known there are methods of preventing the ebullition of liquids, by the addition of particular matters in the boiling, it is submitted to the consideration of the ingenious, whether by the addition of some matters, or by some mechanical operations, the boiling and evaporation may not be increased ?

133. The same premium is extended one year further.

To

C H E M I S T R Y. 299

To be communicated to the Society, on or before the first Tuesday in January, 1790.

134. PREVENTING THE DRY ROT IN TIMBER. To the person who shall discover to the Society, the cause of the Dry-Rot in Timber, and disclose a certain method of prevention, superior to any hitherto known ; the gold medal.

The Accounts of the cause and method of prevention, confirmed by repeated experiments, to be produced to the Society on or before the second Tuesday in December, 1788.

135. The same premium is extended one year further.

The Accounts to be produced on or before the second Tuesday in December, 1789.

136. FINE

300 C H E M I S T R Y.

136. FINE BAR IRON. To the person, in England or Wales, who shall make in the year 1788, the greatest quantity of Bar Iron, not less than ten tons, with Coak from Coak Pigs, equal in quality to the best Iron imported from Sweden or Russia, and as fit for converting into Steel ; the gold medal.

Samples, not less than one hundred weight, with Certificates that the whole quantity is of equal quality, to be produced to the Society, on or before the first Tuesday in January, 1789.

137. The same premium is extended one year further.

SAMPLES and CERTIFICATES to be delivered on or before the first Tuesday in January, 1790.

138. METHOD OF PREPARING  
WHITE LEAD WHICH SHALL  
NOT



NOT BE PREJUDICIAL. To the person who shall discover to the Society, a method of preparing White Lead, in a manner that shall not be prejudicial to the health either of the workmen employed in making or using it, and will answer all the purposes for which White Lead is at present used ; fifty pounds.

A quantity of the White Lead so prepared, with an account of the process made use of, and Certificates that not less than one ton has been manufactured in the same manner, to be produced to the Society on or before the second Tuesday in November, 1789.

139 ~~138~~. SUBSTITUTE FOR THE BASIS OF PAINT. To the person who shall produce to the Society the best substitute, superior to any hitherto known, for the Basis of Paint, equally proper for  
the

the purpose as the White Lead now employed; such substitute not to be of a noxious quality, and which may be afforded at a price not materially higher than that of White Lead; thirty pounds.

A quantity of the Substitute, not less than fifty pounds weight, with an Account of the process used in preparing it, and Certificates that at least five hundred weight has been manufactured, to be produced to the Society, on or before the second Tuesday in November, 1789.

*Premiums*

*Premiums for promoting the Polite Arts.*

140. HONORARY PREMIUMS FOR DRAWINGS. For the best Drawing of any kind, made with Crayons, Chalk, Black Lead, Pen, Indian Ink, or Bister, by young Gentlemen under the age of twenty-one, sons or grandsons of Peers or Peereffes, in their own right, of Great Britain or Ireland; to be produced on or before the first Tuesday in March, 1789; the honorary medal of the Society in gold.

141. The same in silver, for the second in merit.

142, 143. The same premiums will be given on the like conditions, to young Ladies, daughters or grand daughters of Peers or Peereffes, in their own right, of Great Britain or Ireland.

144. HO-

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144. HONORARY PREMIUMS FOR DRAWINGS. For the best Drawings of any kind made with Crayons, Chalk, Black Lead, Pen, Indian Ink, or Bister; by young Gentlemen under the age of twenty-one.

To be produced on or before the first Tuesday in March, 1789; the gold medal.

145. For the next in merit; the silver medal.

146, 147. The same premiums will be given for Drawings by young Ladies.

N. B. Persons professing any branch of the Polite Arts, or any business dependant on the arts of design, or the sons or daughters of such persons, will not be admitted Candidates in these classes.

*The*

*The following Premiums are offered in conformity to the Will of the late John Stock, of Hampstead, Esq.*

148. SCULPTURE. For the best Model of the Bust of his Royal Highness the Prince of Wales, as large as the life; to be produced on or before the third Tuesday in November, 1788; a silver medallion, with the following engraved inscription: *The Premium given by the Society for the Encouragement of Arts, Manufactures and Commerce, in conformity to the Will of John Stock, of Hampstead, Esq.*

A Cast from the Model to which the Premium is adjudged, is to remain the property of the Society.

149. PORTRAIT. For the best Copy, in Oil Colours, of a Portrait of the late JOHN STOCK, of Hampstead, Esq;

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to be produced on or before the third Tuesday in November, 1788; a silver medallion, with the following engraved inscription: *The Premium given by the Society for the Encouragement of Arts, Manufactures and Commerce, in Conformity to the Will of John Stock, of Hampstead, Esq.*

150. DRAWINGS OF OUTLINES.

For the best Outline after an original group or cast in plaster of human figures, by persons of either sex under the age of sixteen, the principal Figure not less than twelve inches; to be produced on or before the last Tuesday in November, 1788; the greater silver pallet.

151. For the next in merit; the lesser silver pallet.

N. B. These Drawings are to be made on Paper with Chalk, Black Lead, Indian Ink,

Ink, or Bister; and the originals either to be produced to the Society, or to be referred to for their examination.

152. DRAWINGS OF MACHINES.

For the best Perspective Drawing, by persons of either sex, under the age of twenty one years, of the Model of a Crane, by Mr Bunce, in the Society's Repository, shewing particularly the method of stopping the Wheel by the centrifugal force of the Ball, the greater silver pallet; to be produced on or before the third Tuesday in November, 1788.

N. B. Such Candidates as propose to make Drawings for this Premium, will be admitted by the Register any day (Sundays or Wednesdays excepted) between the hours of ten and two.

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The Drawing to which the Premium is adjudged, is to remain the property of the Society.

153. DRAWINGS OF LANDSCAPES. For the best Drawing of a Landscape after nature, by persons of either sex under twenty one years of age, to be produced on or before the third Tuesday in November, 1788; the greater silver pallet.

154. For the next in merit; the lesser silver pallet.

Each Candidate must mention, on the front of the Drawing, from whence the View was taken; and the Drawings must be made with Chalk, Pen, Indian Ink, or Bister.

155. HISTORICAL DRAWINGS.  
For the best Historical Drawing, being  
an



an original composition of five or more Human Figures ; the height of the principal Figure not less than eight inches. To be made with Crayons, Chalk, Black Lead, Pen, Indian Ink, or Bister, and to be produced on or before the third Tuesday in November, 1788 ; the gold pallet.

156. For the next in merit ; the greater silver pallet.

157. ENGRAVING IN THE LINE MANNER. To the Engraver who shall produce to the Society, the best engraved Plate executed by himself of the dimensions of not less than twenty inches by sixteen inches, containing not fewer than three Human Figures, the principal figure not less than twelve inches high ; to be engraved in the LINE MANNER, from any old or modern Picture, the Plate to be published by the Engraver.

### 310 P O L I T E A R T S.

The regular progress of the work from the first Proof of the etching, to the finished impression of the Plate, to be produced to the Society on or before the first Tuesday in February, 1789; the gold pallet, and twenty-five guineas.

158. The same premium is extended one year further.

The Impressions to be delivered on or before the first Tuesday in February, 1790.

159. SURVEYS OF COUNTIES.  
To the person who in the year 1791, shall complete and publish an accurate survey of any one County in England or Wales, on a scale of not less than one inch to a mile, for which rewards have not already been given by the Society; the gold medal, or fifty pounds.

CER-



312 P O L I T E A R T S.

mineral, peculiar to the County or found therein, be carefully and specifically arranged and described, in order that the Publick may be enabled to judge what Arts or Manufactures are most likely to succeed in such County.

The Work to be delivered to the Society on or before the last Tuesday in January, 1789.

161. The same Premium is extended one year further.

The Work to be delivered to the Society, on or before the last Tuesday in January, 1790.

C O N-

## POLITE ARTS. 313

### CONDITIONS.

No person who has gained the first Premium in any Class, will be admitted a Candidate in a Class of an inferior age; and no Candidate shall receive more than one Premium in one year; nor will they, who for two successive years, shall gain the first Premium in one Class, be ever again admitted as Candidates in that Class.

No Person shall ever be admitted a Candidate in any Class, in which he has three times obtained the whole of the first Premium.

No Candidate shall send in more than one Performance in any one Class.

All the Claims which are produced each year, before the Committee of Polite Arts (to which Premiums or Bounties are adjudged)

### 314 P O L I T E A R T S.

judged) are to remain with the Society six weeks after the determination, unless the Candidates, for particular reasons, do apply to have the performances returned.

No Claim for a Premium in the Polite Arts will be admitted, that has obtained, or has been produced in order to obtain a Premium, Reward or Gratification from any other Society, or any Academy or School.

All Performances that obtain Premiums in the Polite Arts, must be begun after the publication of such Premiums.

Purposely to encourage real merit, and to prevent any attempts to impose on the Society, by producing Drawings which shall have been made or retouched by any other Person than the Candidate, the Society is resolved upon all occasions, with  
respect

## P O L I T E   A R T S.   315

respect to the successful Candidates in Classes 150 to 156 inclusive, to prove their abilities, by requiring a specimen made under the inspection of the Committee of Polite Arts, in every instance where such proof can be obtained.

*Premiums*

## 316 MANUFACTURES.

*Premiums for encouraging and improving  
Manufactures.*

162. SILK. For the greatest quantity of merchantable Silk, not less than five pounds, produced by any one Person in England, in the year 1788; the gold medal.

Specimens of the Silk, not less than one pound, with Certificates that the whole is of equal quality, and produced in England; to be delivered to the Society on or before the first Tuesday in January, 1789.

163. For the second greatest quantity, not less than two pounds; the silver medal.

164. MACHINE FOR CARDING SILK. For the best Machine, superior  
to



to any now in use, for carding Waste Silk equally well as by hand; to be produced together with a specimen of the Cardings, on or before the first Tuesday in November, 1788; the gold medal, or twenty pounds.

165. WEAVING FISHING NETS.

For the best specimen of Plain Netting, for Fishing Nets, not less than twenty yards long, and six feet deep, woven in a Loom, or other Machine; to be produced to the Society, on or before the second Tuesday in January, 1789; twenty guineas.

N. B. It is expected that the Specimen produced, be made in such a manner, as to be cut and joined without more loss than usual, that it have such a plain selvage as the common Fishing Nets, and that the Knot be equally fast with those  
in

### 318 MANUFACTURES.

in Nets in common use, and as easily repaired.

166. A strong CLOTH being prepared in SWEDEN, from HOP STALKS, or BINDS, the Society will give the gold medal, or twenty pounds, as a Premium for the best and greatest quantity of such Cloth, not less than twenty - five yards, made in England, and produced to the Society on or before the second Tuesday in December, 1788.

One Pound at least of the Thread to be produced with the Claim.

167. The same Premium is extended one year further.

The Cloth and Thread to be produced to the Society, on or before the second Tuesday in December, 1789.

112. The

MANUFACTURES. 319

168. The same Premium is extended one year further.

The Cloth and Thread to be produced to the Society, on or before the second Tuesday in December, 1790.

169. PAPER FROM RAW VEGETABLE SUBSTANCES. To the Person in England or Wales, who shall make the greatest quantity, not less than ten reams, of the best and most useful Paper, from Raw Vegetable Substances; ten guineas.

CERTIFICATES of the making such Paper, and one ream of the Paper to be produced on or before the first Tuesday in November, 1788.

170. The same Premium is extended one year further.

CER-

## 320 MANUFACTURES.

CERTIFICATES and Samples to be produced on or before the last Tuesday in November, 1789.

N. B. The Society are in possession of two volumes, containing a great variety of specimens of Paper made from Raw Vegetables, viz. Thistles, Potatoe-Haum, Poplar, Hop-Binds, &c. which volumes may be inspected by any Person on application to the Register.

*Premiums*

*Premiums for Inventions in Mechanics.*

171. TRANSIT INSTRUMENT.

To the Person who shall invent and produce to the Society, a cheap and portable Transit Instrument, which may easily be converted into a Zenith Sector, capable of being accurately and expeditiously adjusted for the purposes of finding the Latitudes and Longitudes of places, and superior to any portable Transit Instrument now in use; the gold medal, or thirty guineas.

To be produced on or before the last Tuesday in January, 1789.

172. GUN HARPOON. For every Whale taken by means of the Gun Harpoon; to the Person who first strikes such fish therewith; two guineas.

N. B. Proper Certificates of the taking such Whales, in the year 1788, signed  
Y by

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by the Master, or by the Mate when the Claim is made by the Master ; to be delivered to the Society, on or before the last Tuesday in December, 1788.

173. GUN FOR THROWING HARPOONS. To the Person who shall produce to the Society, the best improvement in the construction of a Gun for throwing Harpoons, so as to render it more manageable than those at present in use ; the silver medal, or ten guineas.

The Gun to be produced to the Society, on or before the first Tuesday in December, 1788.

174. HARPOON TO BE THROWN BY A GUN. To the Person who shall produce to the Society, the best improvement in the construction of a Harpoon to be thrown by a Gun ; the Harpoon to  
be

be so contrived, that it may strike and hold the Fish with more certainty and greater effect than any hitherto made use of; the silver medal, or ten guineas.

The Harpoon to be produced to the Society, on or before the first Tuesday in December, 1788.

175. CROSS BOW, OR OTHER INSTRUMENT FOR THROWING HARPOONS. To the Person who shall produce to the Society, the best constructed Cross Bow, or other Instrument to be used in the Whale Fishery for throwing Harpoons, with more advantage and greater effect than the Gun, or any other Instrument now in use; the silver medal, or ten guineas.

To be delivered to the Society, on or before the first Tuesday in December, 1788.

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176.    CROSS BOW HARPOON,  
For every Whale taken by means of a  
Harpoon, shot from a Cross Bow ; to the  
Person who first strikes such Fish there-  
with, two guineas.

Proper Certificates of the taking such  
Whales in the year 1788, signed by the  
Master, or by the Mate when the Claim  
is made by the Master ; to be delivered to  
the Society, on or before the last Tuesday  
in December, 1788.

177.    DRIVING BOLTS INTO  
SHIPS. To the Person who shall in-  
vent and produce to the Society, a Model  
shewing a method of driving Bolts into  
Ships, particularly those of Copper, with-  
out splitting the Head or bending them,  
with more dispatch in all directions and  
tighter than by any means hitherto  
known or in use ; twenty guineas.

The



The Model to be produced to the Society, on or before the first Tuesday in February, 1789.

178. IMPROVEMENT OF THE HAND VENTILATOR. To the Person who shall produce to the Society, on or before the last Tuesday in February, 1789, a Portable Ventilator, to be worked by hand, better adapted and more efficacious for extracting foul air from Goals, Prisons and Ships, than any now known or in use; the gold medal, or twenty guineas.

179. CRANES FOR WHARFS. To the Person who shall invent and produce to the Society, a Model of a Crane for Wharfs, on a scale of not less than one inch to a foot, the construction to be such that the effect of the power may be varied according to the weight to be raised, in a manner different from any now known

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or in use, yet more simple and effectual;  
the gold medal, or twenty guineas.

To be produced on or before the first  
Tuesday in February, 1789.

N. B. The Model should neither be  
of the Walking Wheel nor Capstan kind.

180. METAL ROPE OR CHAIN.  
To the Person who shall have invented  
a Chain or Rope of Copper, or other  
Metal, superior to any hitherto made,  
sufficiently flexible to work well and IN  
ALL DIRECTIONS over pulleys, and which  
shall serve every purpose of a good Hem-  
pen Rope of at least two inches diame-  
ter: the Candidate to produce to the  
Society satisfactory Certificates, that such  
Metal Rope or Chain has been used to  
advantage in manufactories, or large works  
where Hempen Ropes have been hitherto  
employed; fifty pounds.

The

The Certificates and a Sample of the Metal Chain or Rope, not less than ten yards long, to be produced to the Society on or before the first Tuesday in November, 1789.

Although it is well known that the effect of the wind on horizontal Sails is greatly inferior to that on those which move in a vertical direction, yet as there are some circumstances and situations where it would be most convenient to erect an Horizontal Mill, the Society do therefore offer the following Premium.

181. HORIZONTAL WINDMILL.  
To the Person who shall invent and produce to the Society, a Model of an Horizontal Windmill on a scale of not less than one inch to a foot, superior to those already in use; the gold medal, or twenty guineas.

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To be delivered to the Society, on or before the first Tuesday in February, 1789.

182. HAND MILL. To the Person who shall produce to the Society a better constructed Hand Mill, for general purposes, than any now known or in use; the silver medal, or ten guineas.

To be delivered to the Society, on or before the last Tuesday in December, 1788.

183. MACHINE FOR RAISING COALS, ORE, &c. &c. To the Person who shall invent a Machine for raising Coals, Ore, &c. from Mines, which shall produce the effect at a less expense than those already known or in use; the gold medal, or twenty guineas.

MECHANICKS. 329

A Model of the Machine made on a scale of not less than one inch to a foot ; to be produced to the Society, on or before the second Tuesday in February, 1789.

184. MACHINE FOR RAISING WATER. To the Person who shall invent a Machine, on a better, cheaper and more simple construction than any hitherto in use, for raising Water out of Wells, &c. from a depth not less than fifty feet ; thirty guineas.

CERTIFICATES of the performance of the Machine, and a Model of it, on a scale of not less than one inch to a foot, to be produced to the Society, on or before the first Tuesday in February, 1789.

185. MACHINE FOR CLEARING RIVERS. For the best Model of a Machine superior to any now in use, for clearing

330    M E C H A N I C K S.

clearing Navigable Rivers from Weeds,  
at the least expenſe ; ten guineas.

To be produced to the Society, on or  
before the firſt Tueſday in February,  
1789.

186. SECURING BUILDINGS  
FROM FIRE. To the Perſon who ſhall  
produce to the Society, the moſt ſpeedy  
and effectual method of extinguishing  
Fires in Houſes or other Buildings, ſupe-  
rior to any hitherto known or in uſe ; the  
gold medal, or thirty guineas.

To be produced on or before the ſecond  
Tueſday in February, 1789.

*Premiums*

*Premiums offered for the Advantage of the  
British Colonies.*

187. NUTMEGS. For the greatest quantity of merchantable Nutmegs, not less than five pounds weight, being the growth of his Majesty's dominions in the West Indies, and equal to those imported from the Islands of the East Indies ; the gold medal, or one hundred pounds.

Satisfactory Certificates from the Governor, Lieutenant-governor, President of the Council, or Speaker of the House of Assembly, of the place of growth, with an account of the number of trees, their age, nearly the quantity of fruit on each tree, and the manner of culture, to be produced on or before the first Tuesday in December, 1789.

188. The

332 COLONIES AND TRADE.

188. The same Premium is extended one year further.

CERTIFICATES to be produced on or before the second Tuesday in December, 1790.

N. B. Any Person desirous of information on the subject of Nutmeg-trees, may obtain it from a Memorial on the fructification of the Nutmeg, and the surest method of cultivating it to advantage, by the King's Gardener, at the Isle of Bourbon, inserted in Mr Maty's Review, for August, 1785.

189, 190. BREAD FRUIT TREE.  
To the Person or Persons who, between the first of June, and the fifteenth of August, 1788, shall bring into the Port of London the greatest number of Plants, of one or both species of the Bread Fruit Tree,



COLONIES AND TRADE. 333

Tree, in a growing state, not less than three of either species ; the gold medal.

N. B. The Plants which obtain the Premiums are to be the property of the Society, to be disposed of according to their discretion.

191. BREAD FRUIT TREE. To the Person who in the year 1789, shall convey from the Islands of the South Sea, to any of the Islands in the West Indies subject to the Crown of Great Britain, the greatest number not fewer than six, of one or both species of the Bread-fruit Tree in a growing state ; the gold medal.

CERTIFICATES, signed by the Governor, or Lieutenant-governor of the Island, of the importation of the trees, and of the state they were in at the time of signing such Certificates, to be delivered to the  
Society,

334 COLONIES AND TRADE.

Society, on or before the second Tuesday in October, 1790.

192. The same Premium is extended one year further.

CERTIFICATES to be produced on or before the second Tuesday in October, 1791.

THE SOCIETY being informed that a considerable quantity of Oil can be obtained from the Seed of Cotton, and that after the expression of the Oil, the remaining Cake will afford a strong and hearty Food for Cattle ; and likewise, that the apparatus for the operation can be applied to the Mill for Sugar Canes, and worked in the rainy season, at a moderate expense, have resolved, for the foregoing reasons, that the procuring Oil from the Seed of Cotton, is a proper object of

COLONIES AND TRADE. 335

a Premium, considered as an encouragement for Planters to extend the cultivation of Cotton, an article essentially requisite to encrease the manufacture of that commodity in this Country.

The Society therefore offer as follows :

193. OIL FROM COTTON SEED.

To the Planter in any of the British Islands of the West Indies, who shall express Oil from the seed of Cotton, and make from the remaining seed, hard and dry Cakes, as Food for Cattle; the gold medal.

CERTIFICATES that no less than one ton of the Oil has been expressed, and five hundred weight of the Cakes obtained, to be produced to the Society, with two gallons of the Oil, and two dozen of the Cakes, together with a full account  
of

336 COLONIES AND TRADE.

of the process, on or before the last Tuesday in November, 1788.

194. For the next greatest quantity not less than half a ton of Oil, and two dozen of the Cakes ; the silver medal.

195, 196. The same Premiums are extended one year further.

CERTIFICATES and Samples to be produced on or before the last Tuesday in November, 1789.

197. SPIRIT FROM THE PULP OF THE COFFEE BERRY. To the Planter in any of the British Islands in the West Indies, who shall distil the greatest quantity of Spirit, from the Pulp of the Coffee Berry, not less than thirty gallons, and produce to the Society, one gallon of the Spirit, together with an account

COLONIES AND TRADE. 337

count of the process used in the making it ; the gold medal.

198. For the next greatest quantity not less than fifteen gallons ; the silver medal.

CERTIFICATES signed by the Governor, Lieutenant-governor, or some persons of known credit in the island, to be delivered to the Society, on or before the first Tuesday in January, 1789.

199. SENNA. To the Person who shall import into the Port of London, in the year 1788, the greatest quantity of Senna, not less than two hundred weight, the growth of any of the British Islands in the West Indies, and equal to the ALEXANDRIAN SENNA, now used for medicinal purposes ; the gold medal.

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CERTIFICATES of the growth and method of culture, to be produced to the Society, on or before the first Tuesday in February, 1789.

200. The same Premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in February, 1790.

201. KALI FOR BARILLA. To the Person who shall cultivate in the Bahama Islands, or any other part of his Majesty's Dominions in the West Indies, in the year 1788, the greatest quantity of land, not less than five acres, with Spanish Kali, fit for the purpose of making Barilla ; the gold medal.

202. For the next greatest quantity, not less than three acres ; the silver medal.

CERT

COLONIES AND TRADE. 339

CERTIFICATES signed by the Governor, Lieutenant-governor, or other chief Magistrate, of the quantity of land so cultivated, and of the state of the Plants at the time of signing such Certificates, to be delivered to the Society, on or before the second Tuesday in November, 1789.

203. The same Premium is extended one year further.

CERTIFICATES to be delivered on or before the second Tuesday in November, 1790.

204. CASHEW GUM. To the Person who in the year 1789, shall import into the Port of London, from any of the British Islands in the West Indies, the greatest quantity not less than half a ton, of the Gum of the Cashew Tree, which on trial has been found to answer the purpose of Gum Senegal, in Calicoe-

Z 2 printing,

340 COLONIES AND TRADE.

printing, Silk-dying, &c. the gold medal, or thirty guineas.

A Sample not less than twenty pounds weight, and Certificates that the whole quantity is of the same quality and free from leaves and dirt, to be produced to the Society, on or before the second Tuesday in January, 1790.

205. The same Premium is extended one year further.

CERTIFICATES and Samples to be produced on or before the second Tuesday in January, 1791.

Society's



Society's Office, Adelphi, May 24, 1788.

Ordered,

THAT THE SEVERAL CANDIDATES AND CLAIMANTS TO WHOM THE SOCIETY SHALL ADJUDGE PREMIUMS OR BOUNTIES, DO ATTEND AT THE SOCIETY'S OFFICE IN THE ADELPHI, ON THE LAST TUESDAY IN MAY, 1789, AT TWELVE O'CLOCK AT NOON, TO RECEIVE THE SAME; THAT DAY BEING APPOINTED BY THE SOCIETY FOR THE DISTRIBUTION OF THEIR REWARDS: AND BEFORE THAT TIME, NO PREMIUM OR BOUNTY WILL BE DELIVERED, EXCEPTING TO THOSE WHO ARE OUT OF THE KINGDOM, OR PREVENTED BY UNAVOIDABLE ACCIDENTS.

IN CASES WHERE PERSONAL ATTENDANCE CANNOT BE GIVEN, DEPUTIES MAY BE SUBSTITUTED TO RECEIVE THE REWARDS.

## GENERAL CONDITIONS.

Notwithstanding the Society reserve to themselves the power of giving, in all Cases, such part only of any Premium as the Performance shall be adjudged to deserve, or of withholding the whole, if there be no merit; yet the Candidates may be assured, the Society will always judge liberally of their several Claims.

It is required, that the Matters for which Premiums are offered, be delivered in without names or any intimation to whom they belong; that each particular thing be marked in what manner each Claimant thinks fit, such Claimant sending with it a paper sealed up, having on the outside a corresponding mark, and on the inside, the Claimant's name and address.

No

## GENERAL CONDITIONS. 343

No Papers shall be opened, but such as shall gain Premiums, unless where it appears to the Society absolutely necessary for the determination of the Claim ; all the rest shall be returned unopened, with the Matters to which they belong, if inquired after by their Marks, within two years ; after which time, if not demanded, they shall be publickly burnt unopened at some meeting of the Society.

All Models of Machines, which obtain Premiums or Bounties, shall be the property of the Society.

All the Premiums of this Society are designed for that part of Great Britain, called England, the dominion of Wales, and the town of Berwick upon Tweed, unless expressly mentioned to the contrary.

The Claims shall be determined as soon as possible after the delivery of the Specimens.

### 344 GENERAL CONDITIONS.

No Person shall receive any Premium, Bounty or Encouragement, from the Society, for any Matter for which he has obtained, or proposes to obtain a Patent.

A Candidate for a Premium, or a Person applying for a Bounty, being detected in any disengenuous method to impose on the Society, shall forfeit such Premium or Bounty, and be deemed incapable of obtaining any for the future.

The Performances which each year obtain Premiums or Bounties, are to remain with the Society, until the end of May, except as mentioned in the Conditions annexed to the Premiums offered for promoting the Polite Arts.

No Member of this Society, shall be a Candidate for, or entitled to receive any Premium, Bounty, or Reward whatsoever, except the Honorary Medal of the Society.

Where

## GENERAL CONDITIONS. 345

Where Certificates are required to be produced in claim of Premiums, they should be expressed as nearly as possible in the words of the respective advertisements, and should not be from the Candidate, (solely) but from some other person, or persons, who have a positive knowledge of the facts certified.

Where Premiums or Bounties are obtained, in consequence of specimens produced, the Society mean to retain such part of those specimens as they may judge necessary, making a reasonable allowance for the same,

No Candidate shall be present at any meetings of the Society or Committees, or admitted at the Society's Rooms, after they have delivered in their Claims, until such Claims are adjudged, unless summoned by the Committee.

N. B. Any

## 346 GENERAL CONDITIONS.

N B. Any information or advice that may forward the designs of this Society for the public good, will be received thankfully, and duly considered, if communicated by letter, addressed to the Society, and directed to Mr. MORE, the Secretary, at the Society's office, in the Adelphi Buildings, London.

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\* \* \* In case any Person should be inclinable to leave a sum of money to this Society, by will, the following form is offered for that purpose :

*Item.* I give and bequeath unto A. B. and C. D. the sum of                      upon condition and to the intent, that they or one

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one of them, do pay the same to the Collector for the time being, of a Society in London, who now call themselves the Society for the Encouragement of Arts, Manufactures and Commerce; which said sum of I will and desire may be paid out of my personal estate, and applied towards the carrying on the laudable designs of the Society.

By order of the Society,

SAMUEL MORE, Secretary.

A LIST

## E R R A T A.

- Page 59. line 6. for *Vegi-* read *Vege-*  
61. 2. and page 63 line 10 for *embarkment*  
read *embankment*  
73. last but one, after *attending*, insert *it*  
139. 8. for *sugar lead*, read *sugar of lead*  
331. 1. for *aavantage*, read *advantage*